<u>IN THE CLAIMS</u>

Please amend the claims to read as follows:

<u>Listing of Claims</u>

Claims 1-36 (Canceled).

37. (New) A method for scheduling transmissions of a plurality of mobile terminals in a mobile communication system, wherein each mobile terminal transmits data of a flow being mapped on a dedicated uplink channel to a base station, the method comprising:

receiving QoS information related to the flow at the base station,

receiving a scheduling request from at least one of the mobile terminals at the base station, wherein the scheduling request comprises an identifier identifying the flow, and

scheduling by the base station the transmissions of the of said mobile terminals based on the identifier and the QoS information related to the flow identified by the identifier.

38. (New) The method according to claim 37, wherein the flow is a logical channel mapped on the dedicated uplink channel and the identifier identifies the logical channel.

39. (New) The method according to claim 37, wherein the flow has a priority.

40. (New) The method according to claim 37, wherein the flow is multiplexed on a MAC-d flow.

41. (New) The method according to claim 37, wherein the QoS information comprises a transmission mode associated with the data of the flow.

42. (New) The method according to claim 41, wherein the transmission mode indicates whether data of the flow is transmitted applying an additional gain factor.

43. (New) The method according to claim 37, wherein the scheduling request further comprises information on a buffer occupancy at the mobile terminal and on a transmission power at the mobile terminal.

44. (New) The method according to claim 37, wherein the scheduling request received by the base station is transmitted via MAC control signaling.

45. (New) The method according to claim 37, further comprising transmitting a scheduling assignment from the base station to at least one of the mobile terminals from which a scheduling request has been received at the base station,

wherein the scheduling assignment indicates a uplink resource allocated to the mobile terminal on the dedicated uplink channel.

46. (New) The method according to claim 37, wherein the QoS information is received from a network element terminating the radio resource control signaling of at least one of the mobile terminals.

47. (New) The method according to claim 46, wherein the QoS information is included in a configuration message.

48. (New) The method according to claim 46, wherein the QoS information is received by the base station from the network element terminating the radio resource control signaling in a radio link setup message or a radio link reconfiguration message.

49. (New) The method according to claim 46, wherein the QoS information is received from a serving radio network controller.

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50. (New) The method according to claim 37, wherein the flow is associated to at least one radio bearer between the mobile terminal and the network element terminating the radio resource control signaling and the method further comprises mapping QoS information of a radio bearer to the QoS information of the flow.

51. The method according to claim 50, wherein the mapping of the QoS information comprises taking into account uplink delays on the interface between the base station and the network element terminating the radio resource control signaling.

52. (New) The method according to claim 37, wherein the flow is a MAC-d flow or a priority queue of the mobile terminal.

53. (New) The method according to claim 37, wherein a plurality of flows are multiplexed onto a single dedicated uplink channel by a mobile terminal and the scheduling request comprises an identifier identifying the highest priority flow.

54. (New) The method according to claim 53, wherein the highest priority flow has the highest QoS demands.

55. (New) The method according to claim 37, wherein the QoS information comprises at least one of a transfer delay, a guaranteed bit rate, a traffic handling priority, a service type identification, a traffic class and a reordering release timer of the reordering buffer in the MAC entity.

56. (New) The method according to claim 37, wherein the scheduling request further comprises a service type indicator indicating a transmission of data of the flow carrying a delay-critical service on the dedicated uplink channel.

57. (New) The method according to claim 37, further comprising considering a predetermined gain factor to be additionally applied to the transmission when scheduling the mobile terminal from which the scheduling request has been received at the base station.

58. (New) A base station for scheduling a plurality of transmissions of a plurality of mobile terminals in a mobile communication system, wherein each mobile terminal transmits data of a flow being mapped on a dedicated uplink channel to a base station, said base station comprising:

a communication unit operable to receive QoS information

related to the flow and a scheduling request from at least one of the mobile terminals, wherein the scheduling request comprises an identifier identifying the flow, and

a scheduling unit operable to schedule the transmissions of said mobile terminals based on the identifier and the QoS information related to the flow identified by the identifier.

59. (New) The base station according to claim 58, wherein the flow is a logical channel mapped on the dedicated uplink channel and the identifier identifies the logical channel.

60. (New) The base station according to claim 58, wherein the flow has a priority.

61. (New) The base station according to claim 58, wherein the flow is multiplexed on a MAC-d flow.

62. (New) The base station according to claim 58, wherein the scheduling request further comprises information on a buffer occupancy and on a transmission power at the mobile terminal.

63. (New) The base station according to claim 58, wherein the communication unit is operable to transmit a scheduling

assignment to at least one of the mobile terminals from which the scheduling request has been received, and the scheduling assignment indicates an uplink resource allocated to the dedicated uplink channel of the mobile terminal.

64. (New) The base station according to claim 58, wherein the QoS information is received from a network element terminating the radio resource control signaling of at least one of the mobile terminals.

65. (New) The base station according to claim 64, wherein the QoS information is included in a configuration message.

66. (New) The base station according to claim 64, wherein the QoS information is received from a serving radio network controller.

67. (New) The base station according to claim 58, wherein a plurality of flows is multiplexed onto a single dedicated uplink channel by a mobile terminal and the scheduling request comprises an identifier identifying the highest priority flow.

68. (New) The base station according to claim 67, wherein the highest priority flow has the highest QoS demands.

69. (New) The base station according to claim 58, wherein the QoS information comprises at least one of a transfer delay, a guaranteed bit rate, a traffic handling priority, a service type identification, a traffic class and a reordering release timer of the reordering buffer in the MAC entity.

70. (New) The base station according to claim 58, wherein the scheduling request further comprises a service type indicator indicating a transmission of data of the flow carrying a delay-critical service on the dedicated uplink channel.

71. (New) The base station according to claim 58, wherein the scheduling unit is operable to consider a predetermined gain factor to be additionally applied to the transmission when scheduling the mobile terminal from which the scheduling request has been received.

72. (New) A method for transmitting data in a mobile communication comprising the method according to claim 37, and further comprising:

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transmitting from the mobile terminal the scheduling

request,

receiving at the mobile terminal a scheduling assignment

from the base station, and

transmitting data according to the scheduling assignment.

73. (New) The method according to claim 72, further

comprising receiving the QoS information from a network element

terminating the radio resource control signaling of the mobile

terminal at the mobile terminal.

74. (New) A mobile terminal in a mobile communication

system, wherein the mobile terminal transmits data of a flow

mapped on a dedicated uplink channel to a base station based on

the scheduling performed by the base station according to the

method of one of claims 58, the mobile terminal comprising:

a transmitting unit operable to transmit the scheduling

request, and

a receiving unit operable to receive a scheduling assignment

from the base station

wherein the transmitting section is further operable to

transmit data according to the scheduling assignment.

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75. (New) The mobile terminal according to claim 74, wherein the receiving section is further operable to receive the QoS information from a network element terminating the radio resource control signaling of the mobile terminal.

76. (New) A computer readable storage medium for storing instructions that when executed by a processor of a base station in a mobile communication system cause the base station to schedule transmissions by a plurality of mobile terminals, wherein each mobile terminal transmits data of a flow mapped on a dedicated uplink channel, by:

receiving QoS information related to the flow at the base station,

receiving a scheduling request from at least one of the mobile terminals at the base station, wherein the scheduling request comprises an identifier identifying the flow, and

scheduling by the base station the transmissions of said mobile terminals based on the identifier and the QoS information related to the flow identified by the identifier.

77. (New) A computer readable storage medium for storing instruction that when executed by the processor cause the base station to perform the method according to claim 37.

78. (New) A computer readable storage medium for storing instruction that when executed by the processor cause the mobile terminal to perform the method according to claim 72.